

ANNUAL DRINKING WATER QUALITY REPORT FOR 2016

**Incorporated Village of Mineola
Water Department
167 Elm Place, Mineola, New York 11501
(Public Water Supply ID # 2902839)**



**Prepared by:
D&B Engineers and Architects, P.C.
330 Crossways Park Drive, Woodbury, NY 11797**

May 2017

Dear Fellow Residents and Merchants,

I am pleased to present the 2016 Annual Water Quality Report for the Incorporated Village of Mineola.

The Village of Mineola Water Department operates your water production and delivery systems. The Water Department carefully and regularly tests the water pumped from our wells and delivered through our piping system in order to assure that it is of the highest quality possible. We adhere to the strictest standards for protecting our water supply and for safe and sanitary delivery to you, our consumers.

The Board of Trustees and I consider quality water production and delivery an important responsibility, and, in so doing, have undertaken the rehabilitation of our wells, the installation of purification systems, the servicing of our storage tank, and the replacement and service of our mains. We are very confident that our water production and delivery system will provide superior services to you, our community.

We have the greatest confidence in the service and vigilance of our Water Department employees and their commitment to provide quality water to you and your families.

Sincerely,

*Scott P. Strauss
Mayor*

INTRODUCTION

To comply with State regulations, the Incorporated Village of Mineola annually issues a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact Thomas J. Rini, Superintendent of Public Works, at the Mineola Water Department Office, (516) 746-0751, located at 167 Elm Place, Mineola, NY 11501, the EPA Safe Drinking Water Hotline (1-800-426-4791), or the Nassau County Department of Health at (516) 227-9692. We want our valued customers to be informed about your drinking water. If you want to learn more, please visit the EPA's website at <http://www.epa.gov/safewater/>, the New York State Department of Health's website at <http://www.health.state.ny.us/>, and attend any of our regularly scheduled village board meetings on the first and third Wednesday of each month.

WHERE DOES OUR WATER COME FROM?

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for the public health.

One hundred percent of the water distributed to the Village's consumers is pumped from wells that obtain water from the Magothy aquifer underlying northwest Nassau County. The water level in this aquifer dropped in the drought period of the mid-1960s and has risen in response to generally favorable precipitation that has occurred between 1970 and 2016. Available well supply from the aquifer has not diminished.

The Inc. Village of Mineola water system includes five wells. They are located on Elm Place, Westbury Avenue, Roselle Street, Washington Avenue, and Old Country Road. The Village is 100% metered and has an active cross connection control program in compliance with the State sanitary code.

During 2016, our system did not experience any restriction of our water source. Disinfection of the water system is required by the Nassau County Department of Health. The Village disinfects its water supply by continuously adding sodium hypochlorite solution to Wells No. 1, 4, and 5 in an

amount necessary to maintain a minimum of 0.2 milligrams per Liter (mg/L) chlorine residual. Wells No. 6 and 7 use a tablet calcium hypochlorite chlorinator to maintain necessary chlorine residual. Sodium hydroxide is routinely added at all well stations in an amount necessary to maintain a pH level between 7.5 and 8.5 and to reduce corrosivity. The two wells located on Old Country Road and Washington Avenue are treated to remove volatile organic chemicals using packed tower aeration (air stripping towers). The process is completely natural by which air is delivered through the packing media in the tower past the cascading water to remove the volatiles from the water. The treated water discharges from the tower to a clear well where it is pumped to the distribution system.

The Nassau County Department of Health completed a Source Water Assessment Program for the Inc. Village of Mineola. Possible and actual threats to this drinking water source were evaluated. The source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how rapidly contaminants can move through the subsurface to the wells. The susceptibility of a water supply well to contamination is dependent upon both the presence of potential sources of contamination within the well's contributing area and the likelihood that the contaminant can travel through the environment to reach the well. The susceptibility rating is an estimate of the potential for contamination of the source water; it does not mean that the water delivered to consumers is, or will become contaminated. See the section "ARE THERE CONTAMINANTS IN OUR DRINKING WATER?" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters in the future.

Drinking water is derived from 5 wells. The source water assessment has rated most of the wells as having a very high susceptibility to industrial solvents and a high susceptibility to nitrates. The very high susceptibility to industrial solvents is due primarily to point sources of contamination related to transportation routes and commercial/industrial facilities and related activities in the assessment area. The high susceptibility to nitrate contamination is attributable to residential and commercial land use and related practices in the assessment area, including fertilizing lawns.

A copy of the assessment, including a map of the assessment area, can be obtained by contacting the Nassau County Department of Health.

FACTS AND FIGURES

Our water system serves 19,139 residents through 5,800 service connections. The total water produced in 2016 was 1,037.485 million gallons. The daily average of water treated and pumped into the distribution system was 2.835 million gallons. Our highest single day was 5.074 million gallons which occurred on July 21, 2016. The amount of water delivered to customers was 880.786 million gallons. This leaves an unaccounted-for water total of 156.699 million gallons, estimated at 15.1%. This water was used to flush mains; fight fires; fill road sweepers and tanker trucks; and during water main breaks, leakage in mains and water services, and other authorized use of municipal operations. During 2016, our customers had an annual residential water use of 151,860 gallons and had an annual water charge of \$243.44. The Inc. Village of Mineola water rate schedule is described in Table 2 at the end of the report.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total Coliform, Escherichia coli, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, trihalomethanes, haloacetic acids, radiological and synthetic organic compounds. A supplement to this report showing laboratory results of analysis of all samples (treated and untreated) taken from each water supply well in service and from the distribution system is available upon request. Contact the Mineola Water Department Office, (516) 746-0751, located at 167 Elm Place, Mineola, NY 11501.

Contamination of the groundwater from the Inc. Village of Mineola has been detected in samples from some wells. All groundwater pumped to the distribution system from the operating Water Department wells complies with New York State Department of Health Standards for public drinking water supplies. It should be noted that all drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791) or the Nassau County Department of Health at (516) 227-9692.

The table presented below, Table 1, shows the results of our monitoring for the period of January 1 to December 31, 2016. Table 1 depicts which compounds were detected in your drinking water. Not included in the table are the more than 80 other contaminants which were tested for and not detected in the system. These undetected contaminants are listed herein:

Organics (including Other Principal Organics and Synthetic Organics) - 1,1,1,2-tetrachloroethane, 1,1,1-trichloroethane, 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,1-dichloroethene, 1,1-dichloropropene, 1,2,3-trichlorobenzene, 1,2,3-trichloropropane, 1,2,4-trichlorobenzene, 1,2,4-trimethylbenzene, 1,2-dichlorobenzene, 1,2-dichloroethane, 1,2-dichloropropane, 1,3,5-trimethylbenzene, 1,3-dichlorobenzene, 1,3-dichloropropane, 1,4-dichlorobenzene, 2,2-dichloropropane, 2/4-chlorotoluene, 4-isopropyltoluene, benzene, bromobenzene, bromochloromethane, bromodichloromethane, bromomethane, carbon tetrachloride, chlorobenzene, chloroethane, chloromethane, cis-1,2-dichloroethene, cis-1,3-dichloropropene, dibromomethane, dichlorodifluoromethane, ethylbenzene, hexachlorobutadiene, isopropylbenzene, m,p-xylene, methyl tert-butyl ether, methylene chloride, n-butylbenzene, n-propylbenzene, o-xylene, sec-butylbenzene, styrene, tert-butylbenzene, tetrachloroethene, toluene, trans-1,2-dichloroethene, trans-1,3-dichloropropane, trichloroethene, trichlorofluoromethane, vinyl chloride, and 1,3-butadiene.

Microbiological – Escherichia coli and turbidity.

Inorganics and Physical Characteristics - antimony, arsenic, beryllium, cadmium, iron, manganese, fluoride, chromium, silver, thallium, mercury, color, ammonia-N, nitrite-N, free cyanide, MBAS, odor, and zinc.

Disinfection By-Products [Haloacetic Acids (HAA5) and Trihalomethanes (THM)] - bromoacetic acid, chloroacetic acid, dibromoacetic acid, dichloroacetic acid, total haloacetic acids, trichloroacetic acid, bromodichloromethane, chloroform, and total trihalomethanes.

(TABLE 1 HERE)

The highest level of a contaminant that is allowed in drinking water is known as the Maximum Contaminant Level (MCL). The level of a contaminant below which there is no known or expected risk to health is known as the Maximum Contaminant Level Goal (MCLG). MCLGs allow for a margin of safety.

The highest level of a disinfectant allowed in drinking water is known as the Maximum Residual Disinfectant Level (MRDL). There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. The level of a drinking water disinfectant below which there is no known or expected risk to health is known as the Maximum Residual Disinfectant Level Goal (MRDLG). MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow is known as the Action Level (AL).

Sampling for radiological contaminants is done every 3 years in accordance with Nassau County Department of Health standards. The sampling results presented are from the most recent radiological sampling that was done in 2014. Raw water samples were collected from Village wells and analyzed for gross alpha activity, gross beta activity, radium 226, and radium 228, measured in picocuries per Liter (pCi/L). The maximum contaminant level for gross alpha activity in water is 15 pCi/L. The 2014 highest sampling result for gross alpha is 2.37 pCi/L. The level of concern for gross beta activity in water is 50 pCi/L. The 2014 highest sampling result for gross beta is 4.26 pCi/L. The maximum contaminant level for combined radium 226/228 in water is 5 pCi/L. The 2014 highest sampling result for combined radium 226/228 is 1.58 pCi/L.

Sampling for lead and copper contaminants is done in accordance with Nassau County Department of Health standards. The sampling results presented are from the most recent lead and copper sampling that was done in 2016. Samples were collected from the distribution system at thirty sites and analyzed for lead and copper. Lead is measured in micrograms per Liter (ug/L). The Action Level (AL) for lead is 15 ug/L. The AL for lead was not exceeded at any of the sites tested. Copper is measured in milligrams per Liter (mg/L). The AL for copper is 1.3 mg/L, and the MCLG for copper is 1.3 mg/L. The AL for copper was not exceeded at any of the sites tested.

The levels of lead and copper presented in Table 1 indicate the 90th percentile of those contaminants at the 30 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead and copper values detected at your water system. Thirty samples were collected from your water system and the 90th percentile values for lead and copper were the twenty-

seventh highest values for those contaminants. The 90th percentile for lead as shown in Table 1 is 6.4 ug/L and the 90th percentile for copper as shown in Table 1 is 0.15 mg/L.

WHAT DOES THIS INFORMATION MEAN?

As you can see by Table 1, our system had no violations, but we have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements.

Although nitrate was detected below the MCL, it was detected at 5.96 mg/L, which is greater than one-half of the MCL. Therefore, we are required to present the following information on nitrate in drinking water:

Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

We also are required to present the following information on lead in drinking water:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Inc. Village of Mineola Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at www.epa.gov/safewater/lead.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease-causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia*, and other microbial pathogens are available from the Safe Drinking Water Hotline (1-800-426-4791).

INFORMATION ON UNREGULATED CONTAMINANTS

Unregulated contaminants are those for which the EPA has not established drinking water standards. The Inc. Village of Mineola monitored for additional contaminants under the EPA's Unregulated Contaminant Monitoring Rule 3 (UCMR3) in 2016. The information collected under the UCMR3 will help the EPA determine future drinking water regulations. The results of the monitoring program are included in Table 1 and in the Supplement.

INFORMATION FOR NON-ENGLISH SPEAKING RESIDENTS

Spanish

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Water is a vital resource. The Inc. Village of Mineola encourages water conservation. Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life;
- Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems, and water towers;
- Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met;

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.

- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances, then check the meter after 15 minutes. If it moved, you have a leak.
- Water your lawn in the early morning to reduce water loss by evaporation.

SYSTEM IMPROVEMENTS

In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

In 2016, system improvements included the completion of a SCADA system for well and process controls. The system improvements planned for 2017 include the installation of a new air stripper at the Well 1, Elm Place station and other water main improvements.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. The Incorporated Village of Mineola works hard to provide top quality water to every customer. We ask that all our customers help us protect our water resources.

TABLE 2
INCORPORATED VILLAGE OF MINEOLA
WATER DEPARTMENT
Water Rate Schedule

Category A
One Family and Two Family Residences

| Costs (dollars per 1,000 gallons) | | | | | | |
|--|-----------------------|-----------|-----------|-----------|-----------|--------------|
| Minimum Charge | Entitlement (Gallons) | 10-20,000 | 20-30,000 | 30-40,000 | 40-75,000 | Above 75,000 |
| \$22.00 | 10,000 | \$2.00 | \$2.50 | \$2.80 | \$3.00 | \$3.50 |

Category B
All Other Accounts - Semi-Annual Billing

| Costs (dollars per 1,000 gallons) | | | | | | |
|--|--------------|----------|-----------|-----------|-----------|--------------|
| Meter Size (inches) | Meter Charge | 0-20,000 | 20-40,000 | 40-60,000 | 60-80,000 | Above 80,000 |
| 5/8 | \$55.00 | \$2.00 | \$2.50 | \$3.00 | \$3.60 | \$4.05 |
| 3/4 | \$55.00 | \$2.00 | \$2.50 | \$3.00 | \$3.60 | \$4.05 |
| 1 | \$55.00 | \$2.00 | \$2.50 | \$3.00 | \$3.60 | \$4.05 |
| 1 1/2 | \$112.50 | \$2.00 | \$2.50 | \$3.00 | \$3.60 | \$4.05 |
| 2 | \$137.50 | \$2.00 | \$2.50 | \$3.00 | \$3.60 | \$4.05 |
| 3 | \$175.00 | \$2.00 | \$2.50 | \$3.00 | \$3.60 | \$4.05 |
| 4 | \$225.00 | \$2.00 | \$2.50 | \$3.00 | \$3.60 | \$4.05 |
| 5 | \$300.00 | \$2.00 | \$2.50 | \$3.00 | \$3.60 | \$4.05 |
| 6 | \$350.00 | \$2.00 | \$2.50 | \$3.00 | \$3.60 | \$4.05 |
| 8 | \$575.00 | \$2.00 | \$2.50 | \$3.00 | \$3.60 | \$4.05 |

Initiation of Water Service:

Fee to establish a new water account - \$60.00

Final Meter Reading/Disconnection of Service:

Fee for final meter reading (disconnection of service) - \$60.00

Please call the Water Department Billing Clerk at (516)746-0750, Ext. 224 to arrange for a final meter reading (disconnection of water service).